

WHAT IS CLAIMED IS:

1. A method of increasing the quality of streamed media information, comprising:
streaming media information from a media server to a user device;
storing a copy of the media information in a storage device, the media
5 information having missing information;
sending a request to the media server for the missing information;
receiving the missing information; and
storing the missing information in the copy of the media information in the
storage device.

10 2. The method of claim 1, further comprising:
identifying one or more versions of the media information stored in the
storage device that have missing information; and
performing the sending and receiving steps for each of the one or more
15 versions of the media information.

3. The method of claim 2, wherein identifying one or more versions of the media
information includes at least one of determining if a list of missing data packets is associated
with the one or more versions of the media information and determining if a missing data
20 packet flag is set.

4. The method of claim 1, wherein sending a request to the media server includes
identifying missing data packets in the media information and sending a request for only the
identified missing data packets.

25 5. The method of claim 1, wherein sending a request to the media server includes
requesting retransmission of the entire media information.

30 6. The method of claim 5, wherein storing the missing information includes rewriting
the entire retransmitted media information over the copy of the media information in the
storage device.

7. The method of claim 5, wherein storing the missing information includes:

storing the entire retransmitted media information in the storage device;

5 comparing a number of missing data packets in the entire retransmitted media information with a number of missing data packets in the copy of the media information; and

retaining either the entire retransmitted media information or the copy of the media information in the storage device, whichever has fewer missing data packets.

8. The method of claim 1, wherein the media information includes at least one of

10 video and audio information.

9. The method of claim 1, wherein the missing information in the media information is identified while the media information is streamed from the media server to the user device.

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10. The method of claim 9, wherein the sending a request, receiving the missing information and storing the missing information steps are performed immediately upon identification of the missing information.

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11. The method of claim 9, wherein the sending a request, receiving the missing information and storing the missing information steps are performed periodically or when a network congestion level is below a predetermined threshold.

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12. An apparatus that increases the quality of streamed media information, comprising:

a controller; and

a storage device, wherein media information is streamed from a media server to a user device and a copy of the media information is stored in the storage device, the media information having missing information, and wherein the controller sends a request to
30 the media server for the missing information, receives the missing information and stores the missing information in the storage device.

13. The apparatus of claim 12, wherein the controller identifies one or more versions of the media information stored in the storage device that have missing information and sends the request for each of the one or more versions of the media information.

5 14. The apparatus of claim 13, wherein the controller identifies one or more versions of the media information by at least one of determining if a list of missing data packets is associated with the one or more versions of the media information and determining if a missing data packet flag is set.

10 15. The apparatus of claim 12, wherein the controller sends a request to the media server by identifying missing data packets in the media information and sending a request for only the identified missing data packets.

15 16. The apparatus of claim 12, wherein the controller sends a request to the media server by requesting retransmission of the entire media information.

17. The apparatus of claim 16, wherein the controller stores the missing information in the storage device by rewriting the entire retransmitted media information over the copy of the media information in the storage device.

20 18. The apparatus of claim 16, wherein the controller stores the missing information in the storage device by:

 storing the entire retransmitted media information in the storage device;
 comparing a number of missing data packets in the entire retransmitted media
25 information with a number of missing data packets in the copy of the media information; and
 retaining either the entire retransmitted media information or the copy of the
media information in the storage device, whichever has fewer missing data packets.

30 19. The apparatus of claim 12, wherein the media information includes at least one of video and audio information.

20. The apparatus of claim 12, wherein the controller identifies the missing information in the media information while the media information is streamed from the media server to the user device.

5 21. The apparatus of claim 20, wherein the controller sends the request, receives the missing information and stores the missing information immediately upon identification of the missing information.

10 22. The apparatus of claim 20, wherein the controller sends the request, receives the missing information and stores the missing information periodically or when a network congestion level is below a predetermined threshold.